

CLAIMS

What is claimed is:

1. A wireless projectile capable of delivering a disabling electric shock to a target individual comprising:

5 a. an electric circuit capable of being charged by an external power source and further being capable of maintaining said electrical charge and still further of being capable of delivering said electrical charge in the form of disabling, sub-lethal shocks to a target individual;

10 b. a body capable of being positioned in a casing and forming a cartridge capable of being launched from said cartridge by a propellant and further said body being adapted to housing said electric circuit, and still further said body being shaped and having structures to provide stability in flight.

15 2. The wireless projectile of claim 1 wherein:

 a. said electric circuit is capable of producing a carrier frequency of 250 to 500 kHz and being further capable of producing a second frequency of from 10 to 50 Hz;

20 b. said carrier frequency is capable of being regulated to deliver discharges of from 2 to 45 pulses per second with an initial discharge of up to 8 seconds and at least two subsequent discharges of at least 3 seconds each;

25 c. said electric circuit is further capable of being energized by an independent source of electrical power of from about 1.5 volts to 15 volts;

d. said electrical circuit terminates in at least one pair of electrodes and each member of said at least one pair of electrodes is capable of penetrating the skin of a target individual and further is capable of delivering a disabling shock to said target individual;

e. said disabling shock is from about 250 volts to about 400 volts and about 3 amps to 15 amps, said disabling shock is delivered in each of two frequencies at a specified pulse rate of from 2 to 40 pulses per second; and

f. said electrical circuit is activated by a proximity sensor and analog switch electrically associated with said two members of a pair of electrodes.

3. An electric circuit comprising:

a. an electrical input means whereby an independent electrical power charging source is capable of charging said circuit;

b. a first oscillator in electrical input communication with said electrical output means of said independent electrical power charging source, said first oscillator further having electrical output means;

c. a second oscillator in electrical input communication with the electrical output means of said independent electrical power charging source, said second oscillator further having electrical output means;

d. a least one capacitor having electrical input means

and electrical output means, said electrical input means being in electrical communication with said output means of said independent electrical power charging source;

5 e. a timing circuit with electrical input means and electrical output means, said electrical input means being in electrical communication with said output means of said independent electrical charging source;

10 f. an analog switch with electrical input means and electrical output means, said electrical input means being in electrical communication with said output means of said independent electrical power source;

15 g. a control and amplifier means with a first electrical input means, said first electrical input means being in electrical communication with said output means of said independent electrical power source, said control and amplifier means further having a second electrical input means, said second input means being in electrical communication with said output means of said first oscillator, and a third electrical input means, said third input means being in electrical communication with said output means of
20 said second oscillator, and said control and amplifier means being in electrical functional communication with said analog switch;

25 h. a proximity sensor with electrical input means in electrical communication with said output means of said independent electrical power charging source, said proximity sensor being in functional communication with said timing circuit through its electrical and functional connection with the members of said pair

of electrodes, and with electrical communication with one member of a pair of electrodes; and

i. at least one pair of electrodes the ground member of said pair being in electrical communication with said proximity sensor and the other member of said pair being in electrical communication with the electrical output flowing through said analog switch.

4. A sub-lethal, wireless projectile adapted to being discharged from a weapon comprising:

a. an electrical storage means capable of being connected to a charging power source and of storing electrical energy and delivering controlled releases of charges of at least 500 volts over a minimum period of time of three (3) seconds at 2 millisecond intervals;

b. a circuit system electrically connected to said electrical storage means, said circuit system capable of regulating the magnitude and frequency of electrical discharges from said electrical storage system, said circuit system further having a positive electrical pole and a negative electrical pole;

c. at least one pair of electrodes fabricated of a conductive material, each member of a pair having a proximal end, a distal end, a length, the proximal end of one member of each of said pair of electrodes being connected to the positive pole of said circuit system and the proximal end of the other member of each pair of said electrodes being connected to the negative pole

of said circuit system, and further wherein the distal ends of both members of all pairs of electrodes are shaped to penetrate clothing and flesh and physically to attach to through the skin of a target individual;

5 d. a cylindrical body with a length, a diameter, a front end, a rear end, a front face, a rear face, a longitudinal core defined by the outer wall of said cylindrical body, wherein said electrical storage means and said circuit system are physically positioned and encased in said core of said cylindrical body, and
10 further wherein said distal ends of said pairs of electrodes extend a minimum length of 2.0 cm and said distal end of any of said electrodes is separated from the distal end of any electrode of the opposite polarity by a linear distance of by a distance to facilitate a discharge of at least 350 volts, and further wherein
15 is a flat surface positioned at a right angle to the length of said cylinder body and adapted to delivering a damaging physical blow when said projectile strikes a target individual;

 e. a means to electrically connect said electrical storage means to a power source to charge said electrical storage
20 means.

5. The wireless, sub-lethal projectile of claim 4 wherein the diameter of said cylindrical casing is from 0.6 4.0 cm.

25 6. The wireless, sub-lethal projectile of claim 4 wherein said electrodes and said cylindrical body are fabricated from

material that will not penetrate material such as the exterior skin layer of commercial aircraft.

7. A system to provide perimeter security to an area comprising:

a. a devise comprising an outer sleeve with an attached base, said outer sleeve being positioned in a silo, an inner sleeve that is vertically moveable when positioned in the outer sleeve, a plurality of barrel elements each of said barrel elements having an air tight cap and each of said barrel elements being removably attached to said inner sleeve, and a source of pneumatic power connected to each of said barrel elements;

b. a wireless projectile that forms a near air-tight seal when said projectile is loaded into one of said barrel elements, said wireless projectile being capable of penetrating the clothing and skin of a target individual, of adhering to said target individual, and of delivering a disabling electric shock to said target individual;

c. a means to trigger each of said plurality of barrel elements.

8. A cartridge adapted to being discharged from a weapon comprising;

a. a sub-lethal, wireless projectile;

b. a cylindrical, cartridge casing made from a material with a front end, a back end, and a wall defining the longitudinal

core of said cylindrical, cartridge casing, wherein said sub-lethal, wireless projectile is positioned at least partially in said front end of said cylindrical cartridge case for discharge from said weapon;

5 c. an amount of explosive propellant placed in said cylinder behind said wireless, sub-lethal projectile and adapted with wadding;

 d. a primer device positioned in the rear wall of said cylindrical case to ignite said explosive propellant.

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9. The cartridge of claim 8 wherein said sub-lethal projectile is adapted for discharge from a weapon with a smooth bore barrel.

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10. The cartridge of claim 8 wherein said sub-lethal projectile is adapted for discharge from a weapon with a rifled barrel.

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11. The cartridge of claim 8 wherein said sub-lethal projectile is adapted to deliver a stunning physical blow in addition to an electrical shock.

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12. A device to charge and maintain charge of a wireless, sub-lethal projectile, when said sublethal projectile is positioned in a cartridge, comprising:

a. a cartridge holder;

b. a circuit system to connect individual cartridges is said cartridge holder to a power source; and

c. a power source.

5 13. The device of claim 12 wherein said cartridge holder is a cartridge magazine adapted for rapid disconnection from the power source and loading into a weapon.

10 14. The device of claim 14 wherein said power source is portable thereby allowing the entire device to be portable and adapted to be worn by an individual.

15 15. A sub-lethal, wireless projectile adapted to being discharge from a weapon comprising: an electric circuit capable of delivering a disabling shock to a target individual, said electrical circuit further being capable of being securely positioned in the body element of said wireless projectile, and said electric circuit still further being detachably connected to an independent, charging source of DC electrical power, and
20 finally, said electrical circuit being further capable of generating at least two electrical frequencies, one of said two electrical frequencies being capable of functioning as a carrier frequency.